REMARKS

After entry of this amendment, claims 1-5 and 7-19 are pending. Claim 6 has been cancelled without prejudice or disclaimer. The claims have been amended without prejudice or disclaimer. Support for the amendments is found *inter alia* in the original claims. Further support for amended claim 1 is found in original claims 1 and 6, and in the specification at page 4, lines 19-24 and 43-44, page 14, line 47 through page 15, line 1. Amendments to claims 3 and 19 find further support in the specification at page 12, lines 22-29. Claims 4, 5, 7, and 13 have been amended to better comply with U.S. practice. No new matter has been added.

The specification has been amended adding the heading and associated paragraph referencing the related applications already of record. No new matter has been added.

In the specification, page 17 has been amended to include sequence identifiers to comply with 37 CFR § 1.821(a) and (d). Further, the sequences recited in the specification are included in the Sequence Listing. Applicants submit herewith a replacement paper copy of the Sequence Listing which conforms to 37 CFR §§ 1.821-1.825, a diskette containing the Sequence Listing in computer readable form, and a Statement to Support Filing and Submission in Accordance with 37 CFR §§ 1.821-1.825. No new matter has been added to the Sequence Listing. Entry of this Sequence Listing into the application is requested.

Objections To The Specification

In light of the above amendment and attached sequence listing, diskette, and statement, Applicants believe that the specification is fully compliant with the Sequence Listing rules pursuant to 37 CFR §§ 1.821-1.825. Withdrawal of the objection is respectfully requested.

Objections To The Claims

In light of the above amendments, the objection is believed to be rendered moot. Withdrawal of the objection is respectfully requested.

Rejections Under 35 U.S.C. § 102(b)

Claims 1, 3-6, 8, 9, 13, 14 and 19 are rejected under 35 U.S.C. § 102(b) as being anticipated by Bedbrook *et al.* (U.S. Patent 5,141,870; hereinafter "Bedbrook"). Applicants respectfully traverse and urge reconsideration of the rejection for the following reasons.

"[T]o hold that a prior art reference anticipates a claim, the Board must expressly find that every limitation in the claim was identically shown in the single reference." *Gechter v. Davidson*, 116 F.3d 1454, 1460 (Fed. Cir. 1997).

The Examiner alleges that the nucleic acid fragment disclosed in Bedbrook would hybridize to a complementary strand of SEQ ID NO: 1 of the present invention and that Bedbrook discloses an analogue or fragment of SEQ ID NO: 1, a vector comprising the DNA and use in potato. Applicants respectfully disagree that Bedbrook anticipates the claims. Nevertheless, in order to expedite prosecution, the claims have been amended without disclaimer or prejudice. As recited in the specification and in the claims, the present invention provides an efficient method for transformation of potato plants with a low escape rate and a high transformation efficiency using a new selection system for efficient recovery of transgenic plants. The present invention relates to the use of a mutated AHAS gene conferring imidazoline type herbicide resistance resulting in a highly efficient selection system for production of transgenic potato lines. Furthermore, the method does not comprise a gene conferring resistance to an antibiotic. See specification at page 4, lines 4-6 and 25-44.

The Examiner refers to Figure 10 of Bedbrook for support for this rejection. However, Bedbrook discloses that the sequence depicted in Figure 10, as with other mutants, confers resistance to sulfonylurea herbicides but not to imidazolinone herbicides (see col. 20, lines 18-27). Thus, Bedbrook does not disclose selecting for AHA synthase inhibitor resistant cells using an imidazolinone type herbicide as a selection agent. Additionally, as seen in Figure 9, the plasmid in Bedbrook contains a NPTII gene, which confers resistance to the antibiotic kanamycin. As recited in the specification and in the claims, an antibiotic is not used as a selection agent for selecting the resistant cells.

Furthermore, Bedbrook does not disclose the mutated gene of the present invention depicted in SEQ ID NO: 1 and as such does not disclose a sequence which hybridizes to the complement of SEQ ID NO: 1 (see for example Bedbrook Table 3 at col. 17-18). The Examiner provides a conclusory statement that the sequences in Bedbrook would hybridize without providing any explanation.

Because Bedbrook does not teach or disclose the expression construct or the method as claimed and does not disclose every limitation of the claims, Bedbrook does not anticipate the claims. Reconsideration and withdrawal of the rejection is respectfully requested.

Rejections under 35 U.S.C. § 102/103

Claims 1-9 and 13-19 are rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, as being obvious under 35 U.S.C. § 103(a) over Sathasivan *et al.* (U.S. Patent No. 5,767,366, hereinafter "Sathasivan"). Applicants respectfully traverse and urge reconsideration of the rejection for the following reasons.

"[T]o hold that a prior art reference anticipates a claim, the Board must expressly find that every limitation in the claim was identically shown in the single reference." *Gechter v. Davidson*, 116 F.3d 1454, 1460 (Fed. Cir. 1997). To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. See MPEP § 2143.03.

The Examiner characterizes Sathasivan as disclosing selecting transformed cells with different concentrations of imazapyr and regenerating transformed plants. Additionally the Examiner acknowledges that Sathasivan does not teach imazamox but alleges that it is an obvious analogue. Applicants respectfully disagree with the Examiner's characterization of Sathasivan. Rather Sathasivan teaches away from the present invention. Sathasivin discloses that cloning the 5.8 kb fragment in the vector "proved difficult without the additional kanamycin selection marker (Kan)" (See Sathasivan col. 12, lines 58-60). Additionally, Sathasivan describes that the "primary and secondary selection of transformants was based on the kanamycin resistance conferred expression vector by co-transformed NPTII gene" and that the herbicide "imazapyr was not used as the selection agent" (See Sathasivan, col. 13, lines 10-15).

Therefore, Sathasivan does not teach the use of an imidazolinone herbicide for selection of transformants, but rather teaches using an antibiotic for selection.

Nevertheless, in order to expedite prosecution, the claims have been amended without disclaimer or prejudice. Sathasivan does not teach selection using an imidazolinone herbicide and does not teach selection without an antibiotic. Furthermore, because Sathasivan discloses that cloning the 5.8 kb fragment in the vector "proved difficult without the additional kanamycin selection marker (Kan)," Sathasavin does not teach transgenic potato plant cells, plants and harvest products produced by the method of the present invention that "does not comprise a gene conferring resistance to an antibiotic." (See specification page 4, lines 43-44 and page 15, line 1). Thus, Sathasivan does not anticipate or render obvious the subject matter of claims 1-9 and 13-19. Reconsideration and withdrawal of the rejection is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 1-19 are rejected as being obvious under 35 U.S.C. § 103(a) over Sathasivan in view of Edwards *et al.* (WO 99/06575, hereinafter "Edwards"). Applicants respectfully traverse and urge reconsideration of the rejection for the following reasons.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. See MPEP § 2143.03.

The Examiner relies of Sathasivan for SEQ ID NO: 1 and for selecting transformed cells with imazapyr, alleging that imazamox is an obvious analogue of imazapyr. The Examiner acknowledges that Sathasivan does teach a heterologous DNA sequence encoding an antisense RNA or a DNA that contains information that causes changes in carbohydrate concentration and composition, and relies on Edwards for this teaching. As explained above, Sathasivan teaches away from selecting the transformed cells using an imidazolinone herbicide but rather uses an antibiotic for selection. Edwards does not remedy the deficiencies of Sathasivan. None of the plasmids used in Edwards contain an AHAS selection marker. Rather, the plasmids used in Edwards contain antibiotic resistant genes for selection of transformants. The pJIT60 plasmid contains the ampicillin resistance gene and the pBIN 19 plasmid contains the PNTII gene. Neither Sathasivan nor Edwards, alone or in combination, disclose selecting for AHA synthase

inhibitor resistant cells using an imidazolinone type herbicide as a selection agent without using an antibiotic for selecting transformants as recited in the present claims. Thus, Sathasivan and Edwards, alone or in combination, do not render obvious the subject matter of claims 1-19.

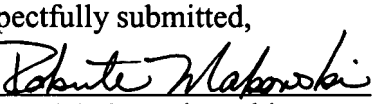
Reconsideration and withdrawal of this rejection is respectfully requested.

CONCLUSION

For at least the above reasons, Applicants respectfully request withdrawal of the rejections and allowance of the claims.

Accompanying this response is a petition for a two-month extension of time to and including July 12, 2007 to respond to the Office Action mailed February 12, 2007 with the required fee authorization. No further fee is believed due. However, if an additional fee is due, the Director is authorized to charge our Deposit Account No. 03-2775, under Order No. 12810-00141-US from which the undersigned is authorized to draw.

Respectfully submitted,

By 

Roberte M. D. Makowski
Registration No.: 55,421
CONNOLLY BOVE LODGE & HUTZ LLP
1007 North Orange Street,
P.O. Box 2207
Wilmington, Delaware 19899
(302) 888-6410 (Tel); (302) 658-5614 (Fax)
Attorney for Applicants

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